### (19) World Intellectual Property Organization

International Bureau



## 

(43) International Publication Date 17 February 2005 (17.02.2005)

PCT

#### (10) International Publication Number WO 2005/015019 A1

(51) International Patent Classification7: F16K 31/12

F04B 17/03.

(21) International Application Number:

PCT/EP2004/007948

(22) International Filing Date: 16 July 2004 (16.07.2004)

(25) Filing Language:

English

(26) Publication Language:

**English** 

(30) Priority Data:

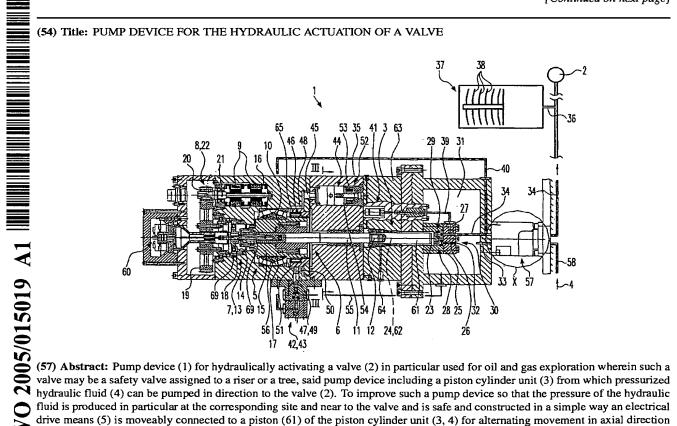
203 11 033.1

17 July 2003 (17.07.2003)

- (71) Applicant (for all designated States except US): COOPER CAMERON CORPORATION [US/US]: 1333 West Loop South, Suite 1700, Houston, TX 77027-9109 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): BIESTER, Klaus [DE/DE]; Am Maschsee 2, 29342 Wienhausen (DE).

- (74) Agent: ROTHAEMEL, Bernd; Grünecker, Kinkeldev. Stockmair & Schwanhäusser, Maximilianstrasse 58, 80538 München (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]



fluid is produced in particular at the corresponding site and near to the valve and is safe and constructed in a simple way an electrical drive means (5) is moveably connected to a piston (61) of the piston cylinder unit (3, 4) for alternating movement in axial direction of the piston within the cylinder (63).

# WO 2005/015019 A1

#### Published:

- with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.